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LINKING (IS) EDUCATION TO TECHNOLOGY

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Abstract:

During the last decade we've seen an enormous change in the availability of tools and technologies to assist people in their learning process. These also impact education in the field of IS. So far there's been isolated use of these technologies which are being reported in literature. There is no clear method of deciding whether or not to engage and use these new technologies. The choice for specific supportive environment is quite often made purely on technological arguments. These arguments are often enforced by choices made on the institutional level (the University or any other educational institute). There is a growing inconvenience with this technological emphasis. A choice process based on a more educational argumentation is urgent needed. In recent years we developed a method to meet this need. During this workshop we will explain the approach, apply it to courses of the attendants, while also seeking more input from different learning approaches. **Keywords:** publication style, IAIM Conference, formats, references

I. INTRODUCTION

The field of information and communication technologies (IT) has undergone tremendous changes over the last two decades. With the global breakthrough of the internet in the early nineties the world slowly became more connected. Nowadays IT is fully integrated in our society and every day people are becoming more dependent on it. The influence of IT on the educational system became visible through the emerging development of available e-learning technologies. In literature you can find a variety of comparable abbreviations to indicate them; Learning Content Management Systems (LCMS), Virtual Learning Environment (VLE), Learning Management Systems (LMS) and E-learning Environment (ELE).

Literature shows various definitions of the term "e-learning" (Koohang & Harman, 2005; Cohen & Nycz, 2006; Oblinger & Hawkins, 2005). Although there is a rich choice of definitions, it is still hard to find a single appropriate one that covers all the necessary aspects.

Therefore, we have defined a description that characterizes e-learning as it should be interpreted for this workshop. With e-learning technologies we refer to a broad scope of available learning technologies. From supportive educational technologies (e.g. Blackboard, Dokeos) where a traditional learning approach is visible, towards more content orientated technologies (e.g. Sharepoint, MediaWiki) where collaboration and information sharing are of importance.

By using this broad scope we are able to include all the learning technologies selected for this workshop and not only enclose traditional electronic learning environments. For the remainder of this article we will refer to these e-learning technologies as Computer Supported Learning Environments (CSLE).

II. WORKSHOP

Within educational institutions, e-learning is identified as one of the emerging areas as shown by means of concrete numbers (Brennan, 2003). However, the influence of online technologies on learning situations have also brought upon several problematic issues. In the literature problems such as high costs (Noble, 2001) and usability problems (Modritscher, 2006) are often reported.

Park et al.(1987) reported on the negligence of pedagogical principles. However more recently Gunawardena & McIsaac (2004) stated that educators are becoming more interested in examining pedagogical themes and strategies within online courses instead of only looking at the technological aspect.

Nowadays students are getting increasingly familiar with the widespread possibilities of the internet, such as social networks (facebook, linkedin), blogs & wikis (wordpress, wikipedia) and collaboration and communication tools (google docs, skype). These became an integral part of our daily life. At the educational level this means that students are able to create, use, re-use and exchange information and data. Nevertheless, not every course is composed in the same way nor are the learning goals and objectives identical. Adding to this, that literature shows that there are several different approaches of learning, we can state that it is not a trivial task to choose a right supportive technology for education.

Our aim with this workshop is to show a method which assists in finding a suitable match between a course and a CSLE, while honoring the different learning approaches. To do this, we have developed a framework in which educators can rate their courses on several learning characteristics and explore which CLSE will be the most appropriate for it. No technical knowledge will be required.

The workshop will give the participants the opportunity to share and exchange thoughts and experiences and give their opinions and views on using supportive technology for education. Combining theses experiences and thoughts with our framework, we hope to gain more insight on the selection process of a CLSE and be able to invigorate our selection method.

III. METHOD

After previous articles (Abcouwer & Smit 2009; Abcouwer et al. 2008; Abcouwer et al. 2007; Abcouwer et al. 2006; Abcouwer et al. 2004) – we have concluded that a more in-depth understanding of the selection process of a suitable CLSE is needed. Therefore, we have selected seven critical learning characteristics which each will be plotted against four widely accepted learning approaches; behaviorism, cognitivism, (social) constructivism and connectivism. We will use the characterization as proposed by Abcouwer & Smit (2009) and Van der Groot (2004). These are the seven characteristics: knowledge creation, communication and feedback, learning context, own responsibility and reflection, multiple intelligence, motivation of the student and role division.

The workshop will start with a brief introduction of the main theme: “Understanding the elements that determine the choice of a supportive technology”. In this part a short view will be given on how supportive technologies nowadays are being used and how these relate to courses, teachers and students. The aim of this part is to let participants get familiarized with the main topic. Participants will be asked to share their experiences with the group and exchange opinions and thoughts in order to create an interactive setting.

Next the developed framework will be introduced and explained. To assure that the whole method is clear for all participants, an example will be provided. In this part the participants will perceive how a course is being rated and which steps will be applied in the matching process.

The next step of the workshop will be the interactive rating of participant's courses following the preceding procedure. This step will show that every course has its own learning goals and objectives, and consequently depending on a teacher's opinion certain learning characteristics can be of more or less importance. These differences again show the variety in which courses are being composed. Using an automated approach the scoring will be done, so that direct feedback can be given.

Encountered pitfalls that should be taken into account during the rating and matching process will be clarified and justified. As rating is not a straight forward exercise, both processes will be subjected to objectivity/subjectivity issues. Likewise, it was not possible to score the characteristics on an absolute scale, so in cases of doubt the final choice was always of subjective nature.

Consequently we will match the different courses of participants with the different CSLE's, using each of the described matching methods. We will compare the different outcomes and relate them back to the practices of the participants and their current use of supportive technologies. The participants are encouraged to interact and discuss the outcome of the proposed CLSE's. With this discussion we hope to create and abstract more insight knowledge concerning the selection process of an appropriate CLSE. By combining the experiences, thoughts and opinions from the participants with the outcomes and gained knowledge during this workshop we hope to be able to strengthen our framework.

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